

A NEW SPECIES OF *ANCHASTUS* FROM ARIZONA AND BAJA CALIFORNIA (COLEOPTERA: ELATERIDAE)

EDWARD C. BECKER

Entomology Research Institute, Canada Department of Agriculture,
Ottawa KIA OC6

ABSTRACT

Anchastus knulli n. sp. from southern Arizona and Baja California is described and illustrated. The absence of a key generic character on adults of this species is discussed.

Specimens of the following new species of *Anchastus* have been found in the Canadian National Collection (CNC) and in several other collections. I am indebted to the following individuals for the loan of specimens: J. N. Knull (JNK), Ohio State University, Columbus; M. W. Stone (MWS), Riverside, Calif.; F. G. Werner, University of Arizona (UA), Tucson; R. H. Arnett, Jr. (RHA; now in Florida State Collection of Arthropods, FSCA, Gainesville), Tallahassee, Fla.; H. B. Leech, California Academy of Sciences (CAS), San Francisco; and G. H. Nelson, Raytown, Mo.

I wish to thank Dr. H. F. Howden, Carleton University, Ottawa, for the use of the scanning electron microscope with which the photographs were taken.

Anchastus knulli Becker, NEW SPECIES

Males & females: Length 7.9-10.7mm (males), 9.5-10.0mm (females); width 2.5-3.4mm (males), 2.8-3.0mm (females). Color uniformly reddish-brown, epipleurae and legs occasionally slightly lighter in color. Pubescence rather conspicuous, golden-brown, erect. Eyes normal, larger in male, ocular index (see Campbell & Marshall, 1964) 62-67 (males), 67-70 (females). Antenna serrate, extending about 1 segment beyond apex of hind angle of pronotum (males), or failing to reach apex by 1 segment (females); without carina on outer surface; second segment attached to apex of first (see Schaaf, 1970), short, globular; third segment about 3 times longer than second and slightly longer than fourth; third to tenth segments each about one and a half times longer than wide. Frontal carina very distinct throughout. Pronotum very slightly wider than long, widest at base (not including hind angles); sides straight, gradually narrowing to the rounded anterior angles; punctures simple to slightly umbilicate and separated by a distance equal to half their diameters on disc; punctures larger, definitely umbilicate and closer on sides; interspaces smooth, shiny; slight median groove on basal half; hind angles divergent, usually in line with side margins, distinctly bicarinate with outer carina parallel to side margin and extending well beyond base of hind angle and with inner carina shorter and closer to inside margin of hind angle than to outer carina. Scutellum oval, slightly convex. Elytra about 2.3 times longer than wide; sides parallel on basal two-thirds, then narrowed to rounded apex; striae punctures usually connected longitudinally by a very shallow groove; intervals convex, punctulate.

Prosternal sutures strongly excavate. Undersides with punctures finer than those on pronotum, interspaces finely reticulate. Hind coxal plate (Fig. 1) greatly expanded with a rounded or a weakly pointed tooth on the inner third. Each tarsus with third segment simple (slightly projected on underside, but not lobed as in all other species of *Anchastus*); hind tarsus (Fig. 2) with first segment elongate, length subequal to distance from base of second segment to middle of fifth; tibial spurs prominent.

Male genitalia (Fig. 3-5): struts on median lobe long, subparallel; basal piece with apical edge (ventral side) broadly "U" shaped or with a small median projection.

Type material: Holotype male. ARIZONA: Madera Canyon, Santa Cruz Co., 5-VII-63, 4,880 ft. J. S. Buckett [CNC Type No. 12, 685]. Allotype female, same data as holotype except 15-VII-63, V. L. Vesterby [CNC].

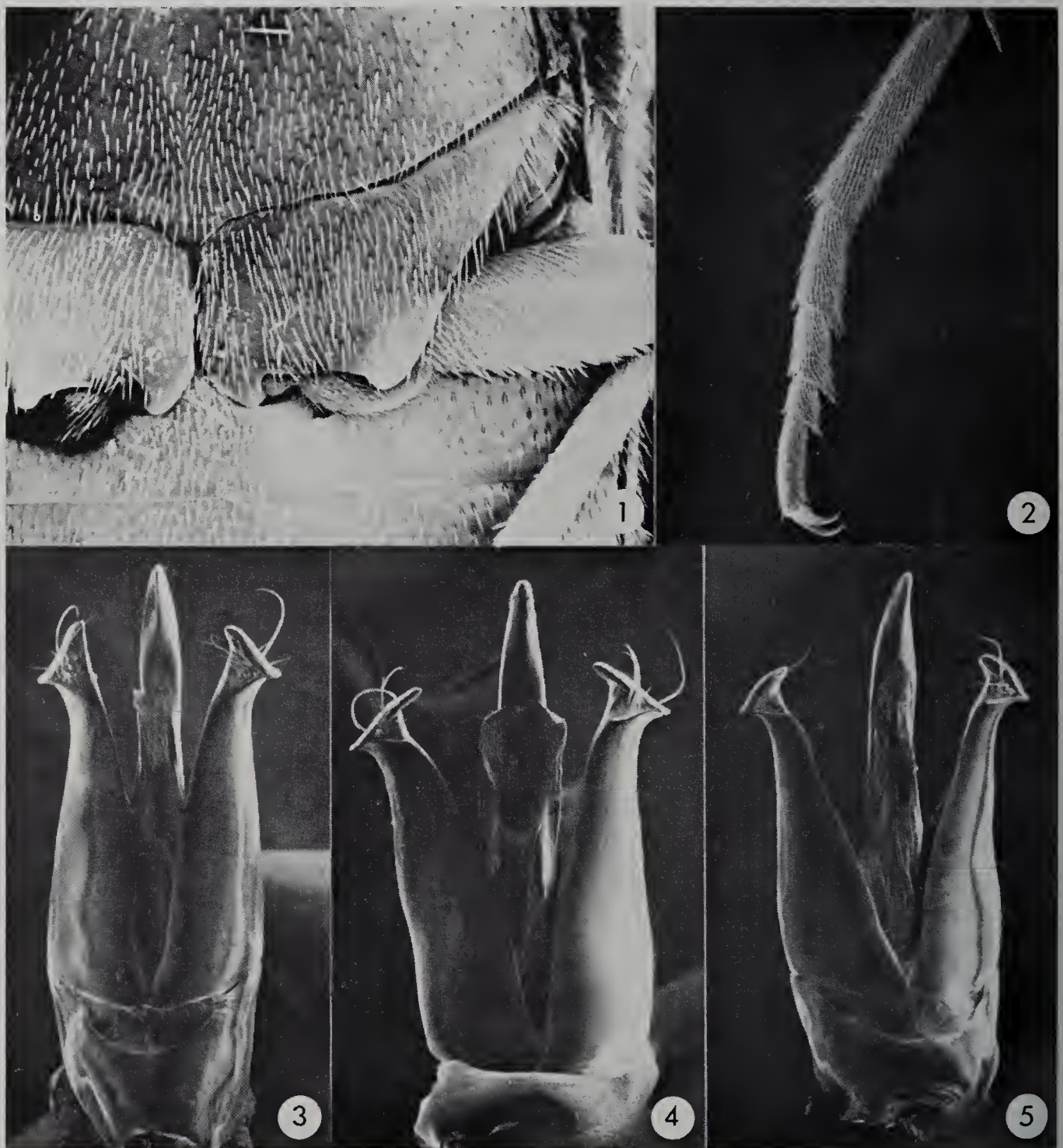


Fig. 1-5: *Anchastus knulli* n. sp. 1) hind coxal plate; 2) hind tarsus; 3-5) male genitalia (3, holotype, Madera Canyon; 4, paratype, Madera Canyon; 5, paratype, San Ignacio). Fig. 4 and 5 are slightly distorted because the apex of each lateral lobe is bent upwards.

Paratypes: 25 males and 3 females from the following localities. ARIZONA: same data as holotype except 18-VI-65, D. N. Harrington [MWS] (1 male); 2-VII-65, D. N. Harrington [MWS] (1 male); 27-VII-65, D. N. Harrington [MWS] (1 male); Madera Canyon, Pima Co., 8-IX-63, V. L. Vesterby [MWS, CNC] (1 male, 1 female); Chiricahua Mts., D. J. and J. N. Knull from the following dates: 30-VI-69 [JNK] (1 male); 1-VII-68 [JNK] (1 male); 6-VII-67 [JNK] (1 male); 8-VII-67 [CNC] (1 male); 9-VII-59 [JNK] (1 male); 10-VII-67 [JNK, CNC] (3 males); 20-VII-65 [JNK] (1 male); 20-VII-67 [JNK] (1 male); 30-VII-59 [JNK] (1 female); Chiricahua Mts., Cochise Co., 29-VI-68, 8,500 ft [CNC] (1 male); 1 mi. S. Portal, Cochise Co., 20-VII-65, 4,800 ft, at light, J. H. and J. M. Davidson, M. A. Cazier [MWS] (1 male); Portal, 23-VII-69, at light, G. H. and J. M. Nelson [CNC] (1 male); Peña Blanca, Pajarito Mts., Santa Cruz Co., 7 & 11-VII-62, Lot. No. 600, R. H. Arnett, Jr., and E. R. Van Tassell [FSCA, CNC] (2 males); same data except 1-VIII-59, Lot No. 439, R. H. Arnett, Jr. [FSCA] (1 male); Cochise Stronghold, Dragoon Mts., 28-VII-64, 4,500 ft, U.V. light, J. Burger [UA, CNC] (3 males); Globe, 8-VIII-49, Werner and Nutting [CNC] (1 male); MEXICO: Baja California: 45 mi. N. San Ignacio, 28-VII-38, Michelbacher and Ross [CAS] (1 male); 15 mi. N. El Refugio, 4-VII-38, Michelbacher and Ross [CAS] (1 female).

I am grateful to Mr. M. W. Stone for permission to retain the holotype and allotype in the Canadian National Collection. The paratypes are distributed as indicated.

Discussion. Adults of *knulli* differ from those of all other species of *Anchastus* by the absence of the lobe on the third tarsal segment. The greatly expanded hind coxal plate, the bicarinate hind angles of the pronotum, the elongate first segment of the hind tarsus, the prominent tibial spurs, and the general habitus all refer this species to *Anchastus*; however, it lacks the lobed third tarsal segment, which is considered to be a key generic character. If one ignored the simple third tarsal segment, there would be no doubt as to which genus to assign this species.

Dr. L. Laurent (pers. comm.) noted that too much emphasis has been placed on the presence or absence of tarsal lobes; he further suggested that this species represented a new subgenus and should be placed near the subgenus *Brachycrepis* LeConte (see Laurent and Taminaux 1961, 1962). However, since the generic characters and limits of *Anchastus* are not well understood, I prefer to ignore subgeneric placement for this species until a thorough revision of the nearctic species is available.

REFERENCES

- CAMPBELL, J. M., AND J. D. MARSHALL. 1964. The ocular index and its application to the taxonomy of the Alleculidae (Coleoptera). *Coleopt. Bull.* 18:42.
- LAURENT, L., AND E. TAMINAUX. 1961. Physorhininae de la Region Aethiopienne (Coleoptera, Elateridae). I. *Bull. Soc. Roy. Sci. Liège* 30:72-90.
- LAURENT, L., AND E. TAMINAUX. 1962. *Ibid.* II. 31:113-139.
- SCHAAF, D. 1970. Revision of the genus *Physorhinus* (Coleoptera, Elateridae) in North, Central, and South America. Part I: Introduction and key to species. *Ent. News* 81:225-232.